STEREO INTEGRATED AMPLIFIER

A-83

SERVICE MANUAL

KENWOOD

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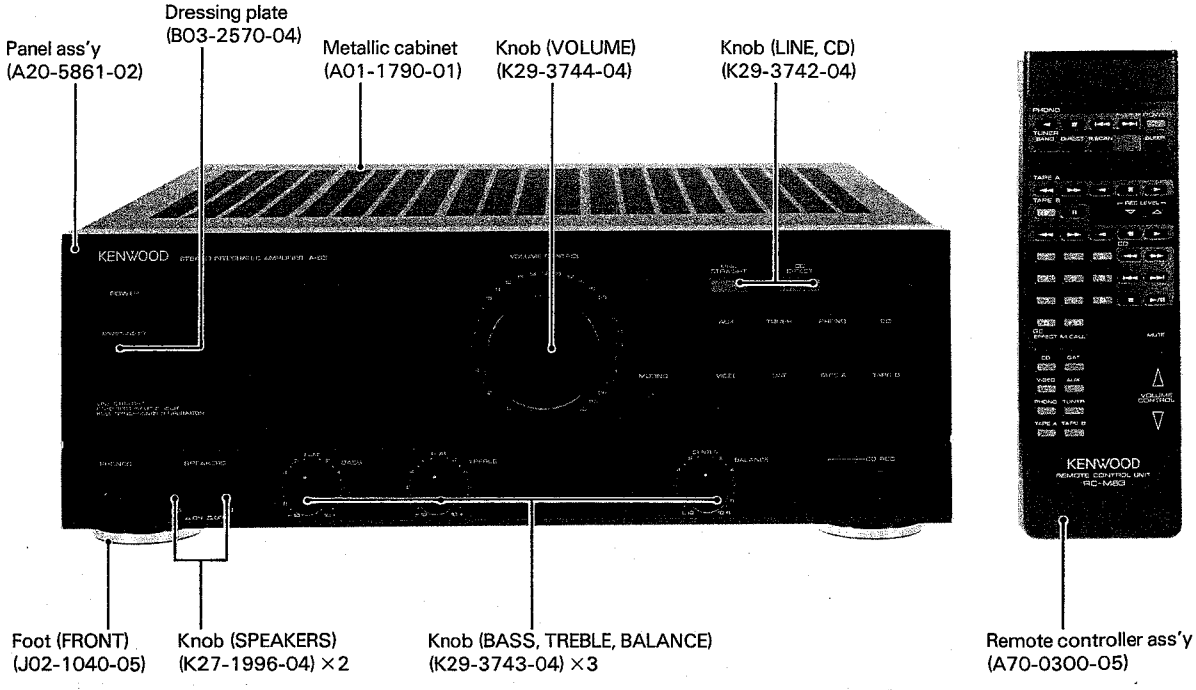
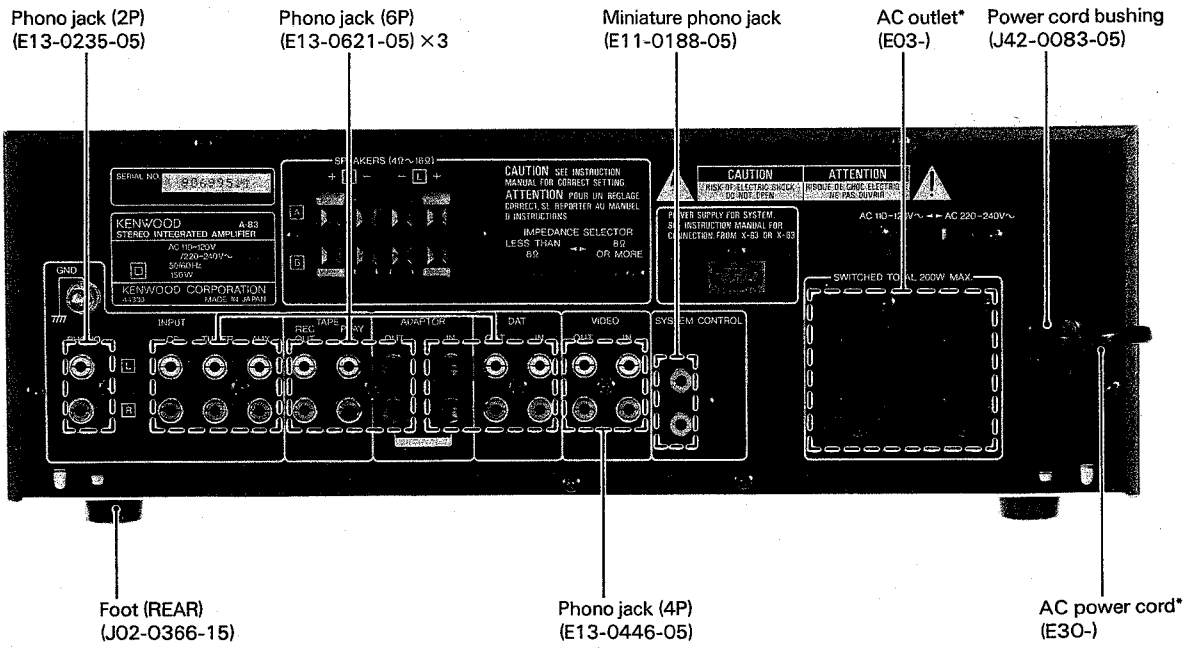
B51-3927-00(B)1312





*** Refer to parts list on page 26.**

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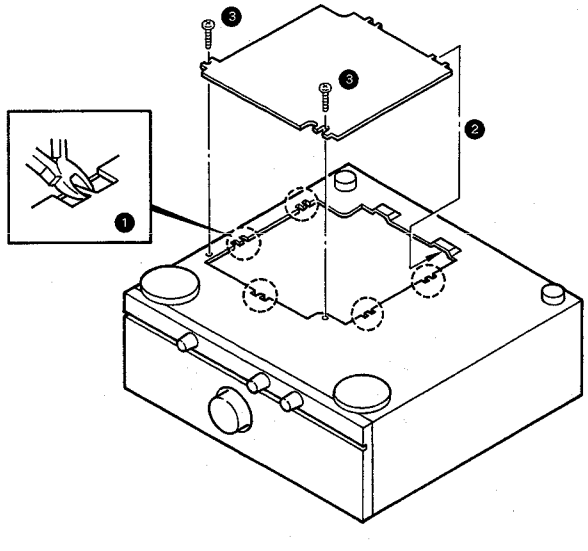
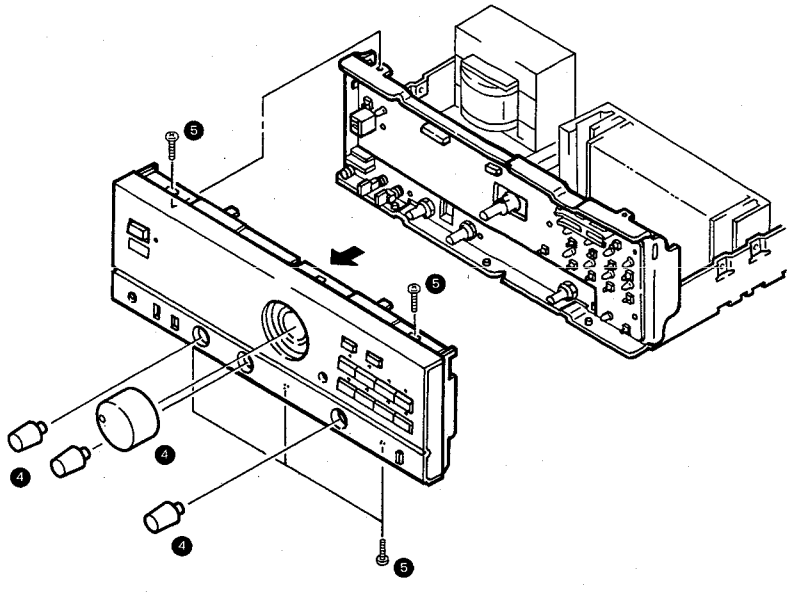
SPECIFICATIONS ..... Back cover

DISASSEMBLY FOR REPAIR

Remove the case prior to the following operations.

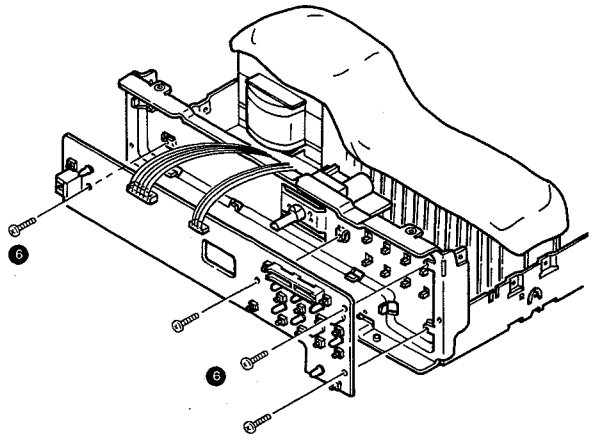
1. Cut the five catches ❶ .
2. To put the bottom board back into place after repairing, turn the bottom board 180° and hook the claws into place as shown hereunder ❷ .
3. Fix down the bottom board with the two screws ❸ .
4. Draw out the four knobs ❹ from their respective shafts.
5. Remove the five screws ❺ of the front panel, then take out the front panel in the direction of the arrow.



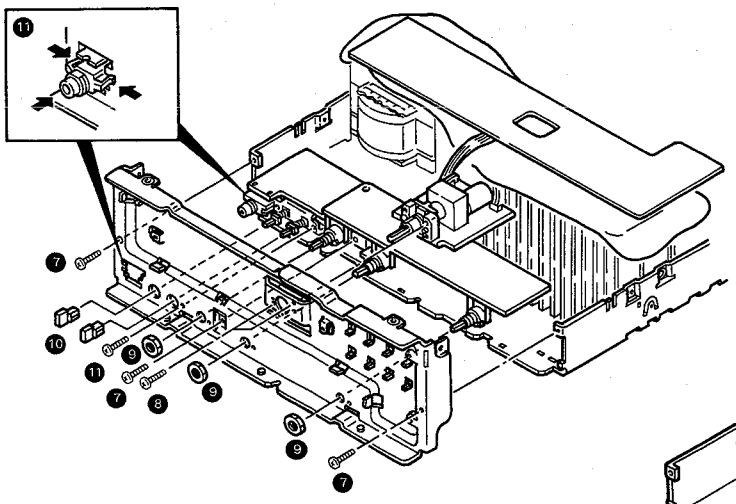


DISASSEMBLY FOR REPAIR

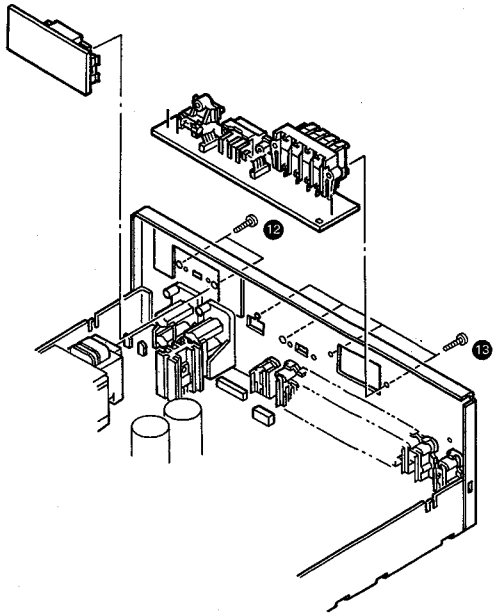
6. Remove the four screws ❻ fixing the PC board.



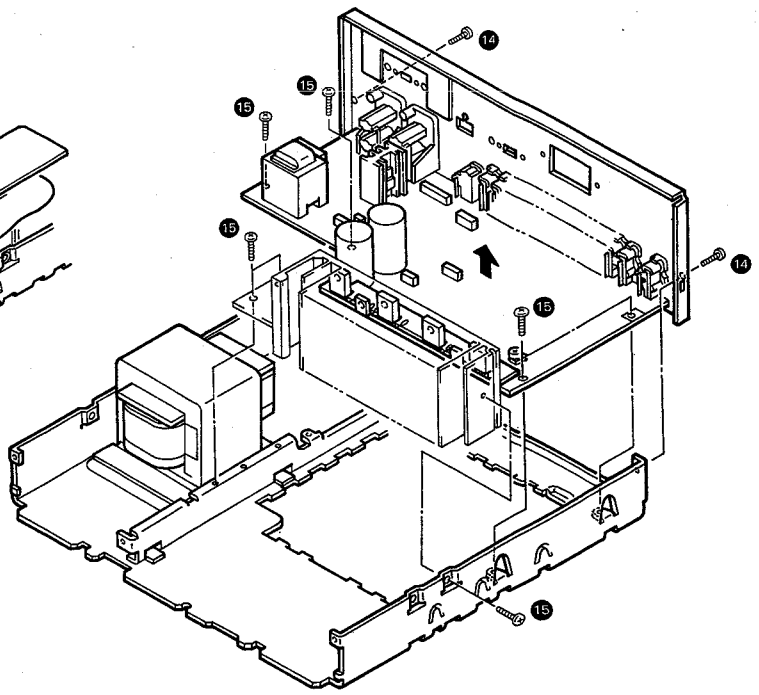
7. Remove the three screws ❼ fixing the subpanel.
8. Remove the two screws ❽ fixing the PC board.
9. Remove the three nuts ❾ fixing the PC board.
10. Draw out the two knobs ❿ from their respective shafts.
11. As shown hereunder, remove the screw and undo the catches, then detach the PC board ⓫ .



12. Remove the two screws ⓬ from the rear panel, then detach the PC board. (M TYPE only)
13. Remove the four screws ⓭ from the rear panel, then detach the PC board.



14. Remove the two screws ⓮ from the rear panel.
15. Remove the seven screws ⓯ fixing the PC board.



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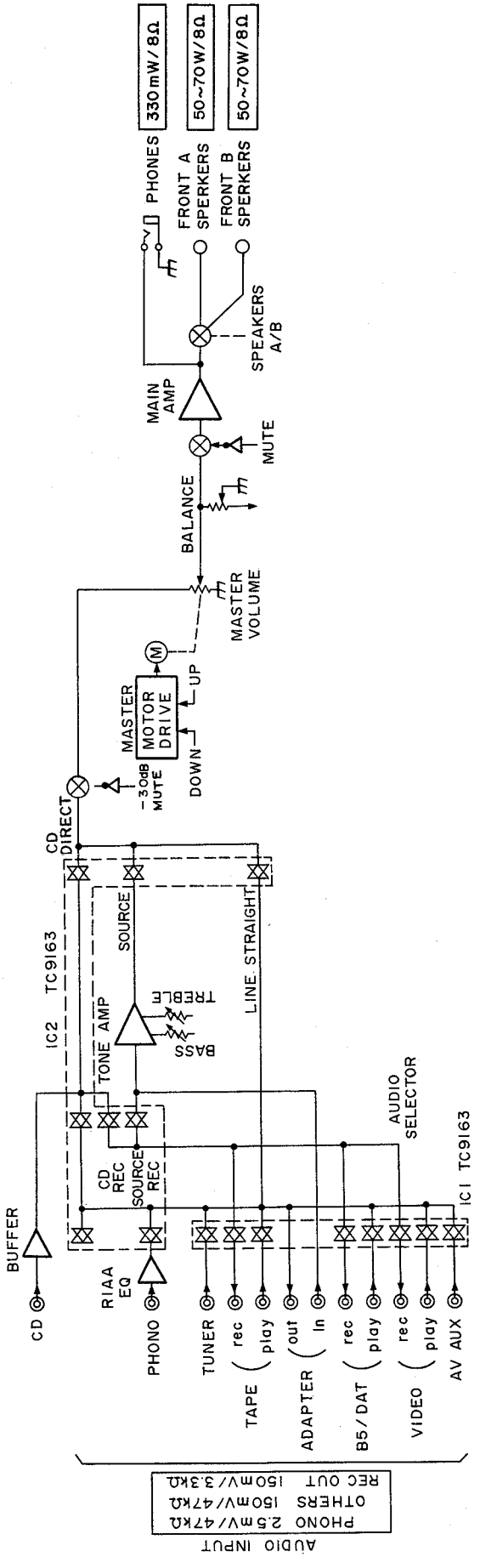
BLOCK LEVEL DIAGRAM



CIRCUIT DESCRIPTION

Component Function

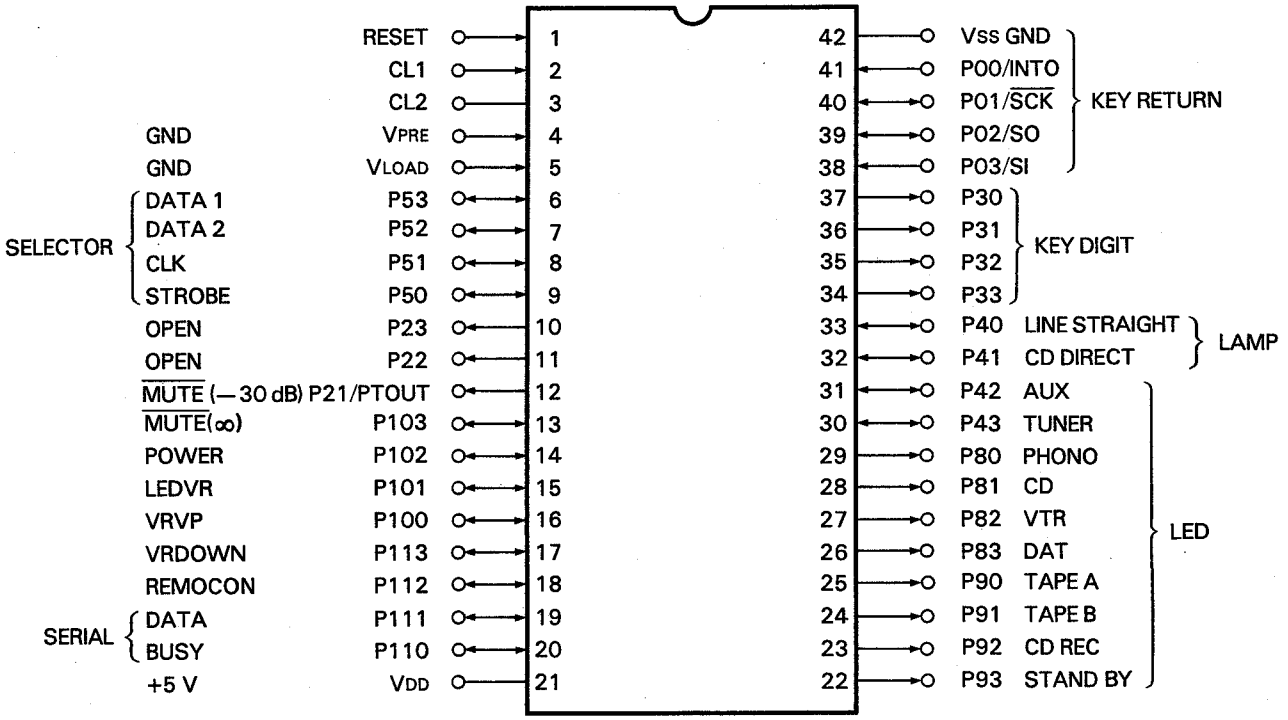
AUDIO UNIT (X09-2920-20)

Component	Component name	Use/Function	Operation/Condition/Compatibility
IC1	μPC4570C-A	Phono equalizer	
IC2, 7	μPC4570C-A	Buffer amp	
IC3, 4	TC9163N	Input selector	
IC5	μPC7805HF	Constant-voltage power supply	+5 V (for the microcomputer)
IC6	μPC7812HF	Constant-voltage power supply	±12 V
IC201	μPC4570C-A	Op-amp	For tone amp.
IC202	μPD7538AC075	Microcomputer	
IC203	PST524D	Reset IC	High reset
IC204	BA6209N	Reversible motor driver	For driving the motor-drive volume control. When the volume is increased with the remote control, pins 2 and 5 go high. When the volume is decreased with the remote control, pins 10 and 6 go high.
Q1~Q4	2SC2878(B)	Muting	
Q5~Q8	2SA992(F,E)	Class-A primary stage differential amplifier	
Q9~Q12	2SC1845(F,E)	Class-A secondary stage differential amplifier	
Q13, Q14	2SA992(F,E)	Class-A current mirror circuit	
Q15, Q16	2SC4137F19(V,W)	For bias current compensation	
Q17, Q18	2SC1845(F,E)		
Q19, Q20	2SC2590	Pre-driver	
Q21, Q22	2SA1110		
Q23	2SC4467LB		
Q24	2SC4467LB		
Q25	2SA1694LB	Final transistor L	
Q26	2SA1694LB	Final transistor R	
Q27		PROTECTION	
Q28	2SC945(A)(Q, P)	PROTECTION	
Q29	2SA733(A)(Q, P)	PROTECTION	
Q31	2SA992(F, E)		
Q32	2SB941		
Q33	2SC2003(L, K)	Power relay drive	Turns ON when the power is switched ON. (Q36 is only for the M-type model)
Q201, Q202	2SA733(A)(Q, P)	Muting driver	Turns Q13 and Q14 ON/OFF.
Q203, Q204	2SC2003(L, K)	Constant-voltage power supply	lamp driver

CIRCUIT DESCRIPTION

Microprocessor (μPD7538AC-075: IC202)

Port layout



Pin Description

Pin No.	Pin Name	I/O	Function Name	Operation
1	RESET	I	RESET	System reset
2	CL1	I	CLOCK 1	System clock
3	CL2	—	CLOCK 2	System clock
4	VPRE	I	GND	GND
5	VLOAD	I	GND	GND
6	P53	O	SELECTOR DATA 1	Selector drive data signal 1
7	P52	O	SELECTOR DATA 2	Selector drive data signal 2
8	P51	O	SELECTOR CLOCK	Selector drive clock signal
9	P50	O	SELECTOR STROBE	Selector drive strobe signal
10	P23	—	NC	
11	P22	—	NC	
12	P21/PTOVT	O	MUTE (—30 dB)	Mute (—30 dB)
13	P103	O	MUTE (∞)	Mute (∞)
14	P102	O	POWER	Power relay drive
15	P101	O	LEDVR	Volume LED ON
16	P100	O	VRVP	Volume motor up
17	P113	O	VR DOWN	Volume motor down
18	P112	I	REMOCON	Remove control signal input
19	P111	I/O	SERIAL DATA	Serial signal I/O (DATA)
20	P110	I/I	SERIAL BUSY	Serial signal I/O (BUSY)
21	VDD	I	+5 V	+5 V power supply
22	P93	O	STAND-BY	LED STAND-BY
23	P92	O	CD REC	LED CD REC
24	P91	O	TAPE B	LED TAPE B

CIRCUIT DESCRIPTION

Pin No.	Pin Name	I/O	Function Name	Operation
25	P90	O	TAPE A	LED TAPE A
26	P83	O	DAT	LED DAT
27	P82	O	VTR	LED VTR
28	P81	O	CD	LED CD
29	P80	O	PHONO	LED PHONO
30	P43	O	TUNER	LED TUNER
31	P42	O	AUX	LDD AUX
32	P41	O	CD DIRECT	LAMP CD DIRECT
33	P40	O	LINE STRAIGHT	LAMP LINE STRAIGHT
34	P33	O	KEY DIGIT 3	Key scan signal bit 3
35	P32	O	KEY DIGIT 2	Key scan signal bit 2
36	P31	O	KEY DIGIT 1	Key scan signal bit 1
37	P30	O	KEY DIGIT 0	Key scan signal bit 0
38	P03/SI	I	KEY RETURN 3	Key return signal bit 3
39	P02/SO	I	KEY RETURN 2	Key return signal bit 2
40	P01/SCK	I	KEY RETURN 1	Key return signal bit 1
41	P00/INTO	I	KEY RETURN 0	Key return signal bit 0
42	Vss	I	GND	GND

Operational specification of test mode

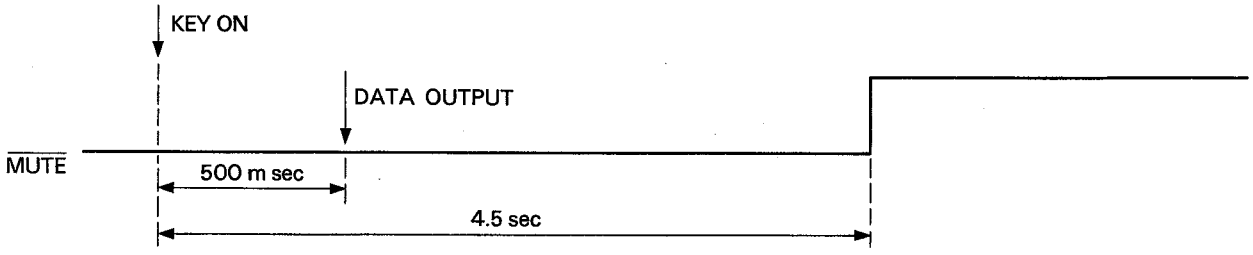
With this unit plugged into AC, when a specific key has been pressed or when serial code "TEST ON" is input, this unit performs the operation of the test mode.
When entering the test mode with this unit plugged into AC.

When the CD key has been pressed

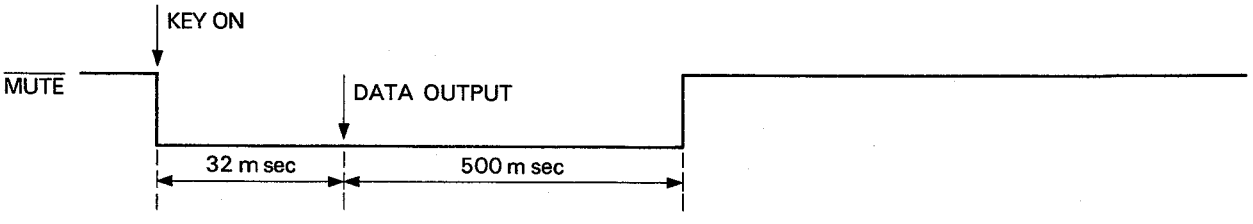
- LEDs light in a sequence as shown below. (LED test)
  * STAND-BY → LINE STRAIGHT → CD DIRECT → AUX → TUNER → PHONO → CD → VTR → DAT → TAPE A → TAPE B → CD REC → *
- Due to pressing the TUNER key, the test mode is disengaged to enter the power ON initial state. (Any other keys are disabled from operation.)

Timing chart

(1) POWER KEY ON



(2) SELECTOR, CD DIRECT, LINE STRAIGHT, CD REC



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ADJUSTMENT/REGLAGE/ABGLEICH

ADJUSTMENT

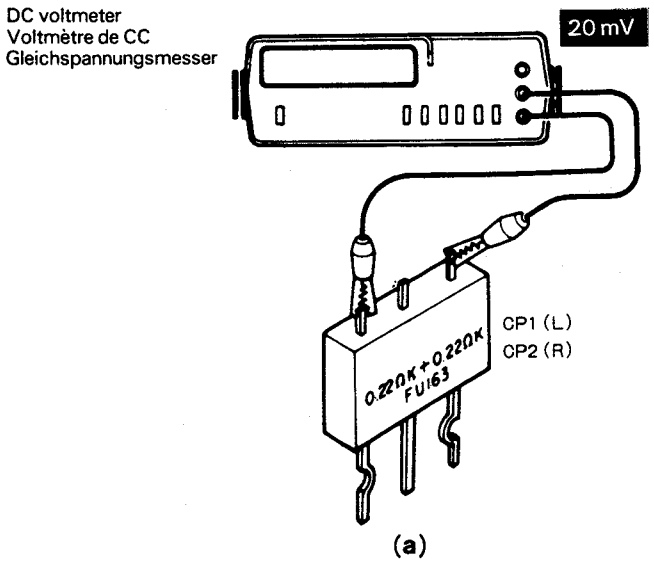
No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	AMPLIFIER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
1	IDLE CURRENT	–	Connect a DC voltmeter across CP1 (L) CP2 (R) (X09-)	VOLUME: 0	VR1 (L) VR2 (R) (X89-)	20mV	(a)

REGLAGE

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DE L'AMPLIFICATEUR	POINT L'ALIGNEMENT	ALIGNER POUR	
1	COURANT DE POLARISATION	–	Connecter un voltmètre de CC sur CP1 (G) CP2 (D) (X09-)	VOLUME: 0	VR1 (G) VR2 (D) (X89-)	20mV	(a)

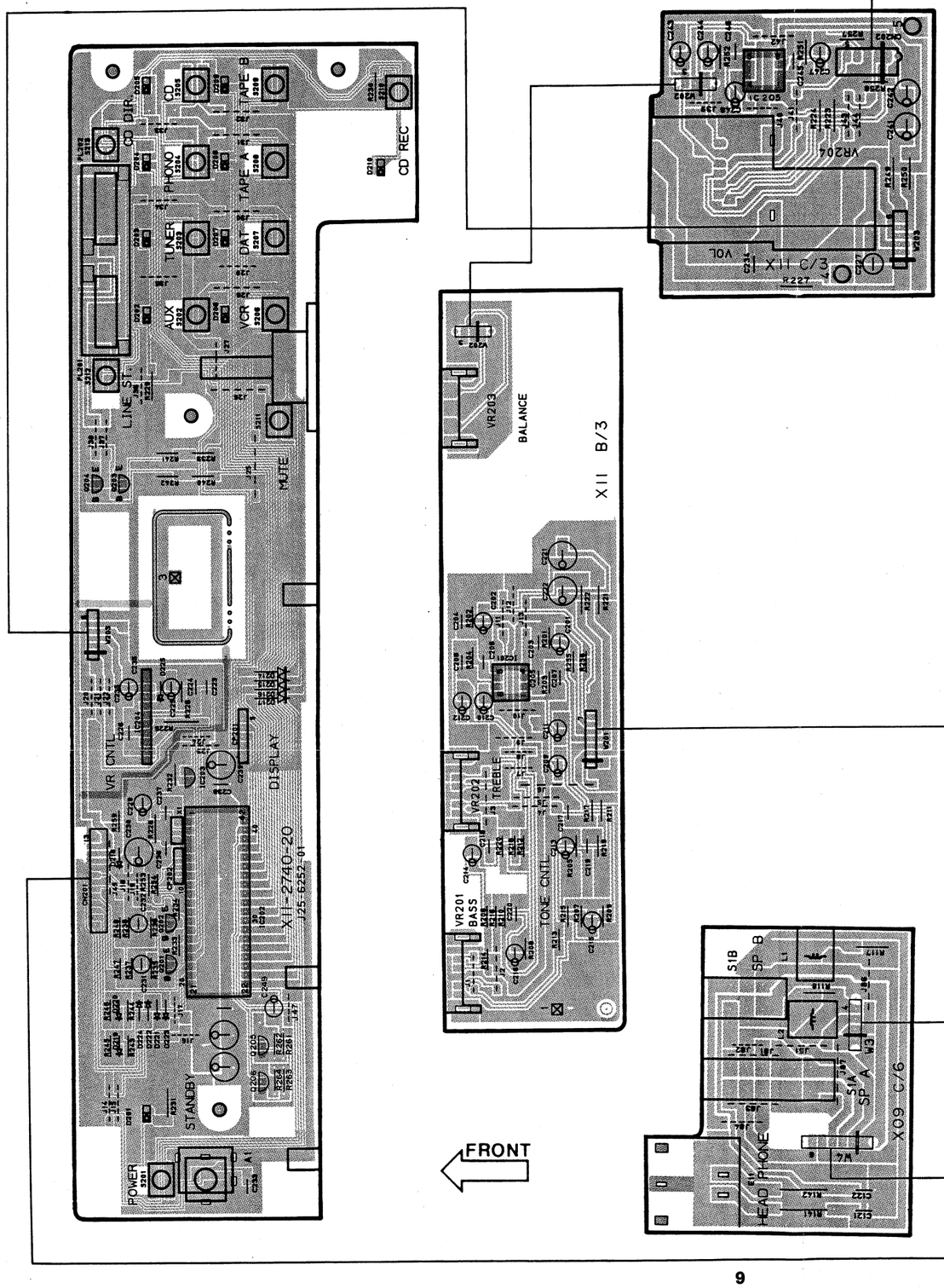
ABGLEICH

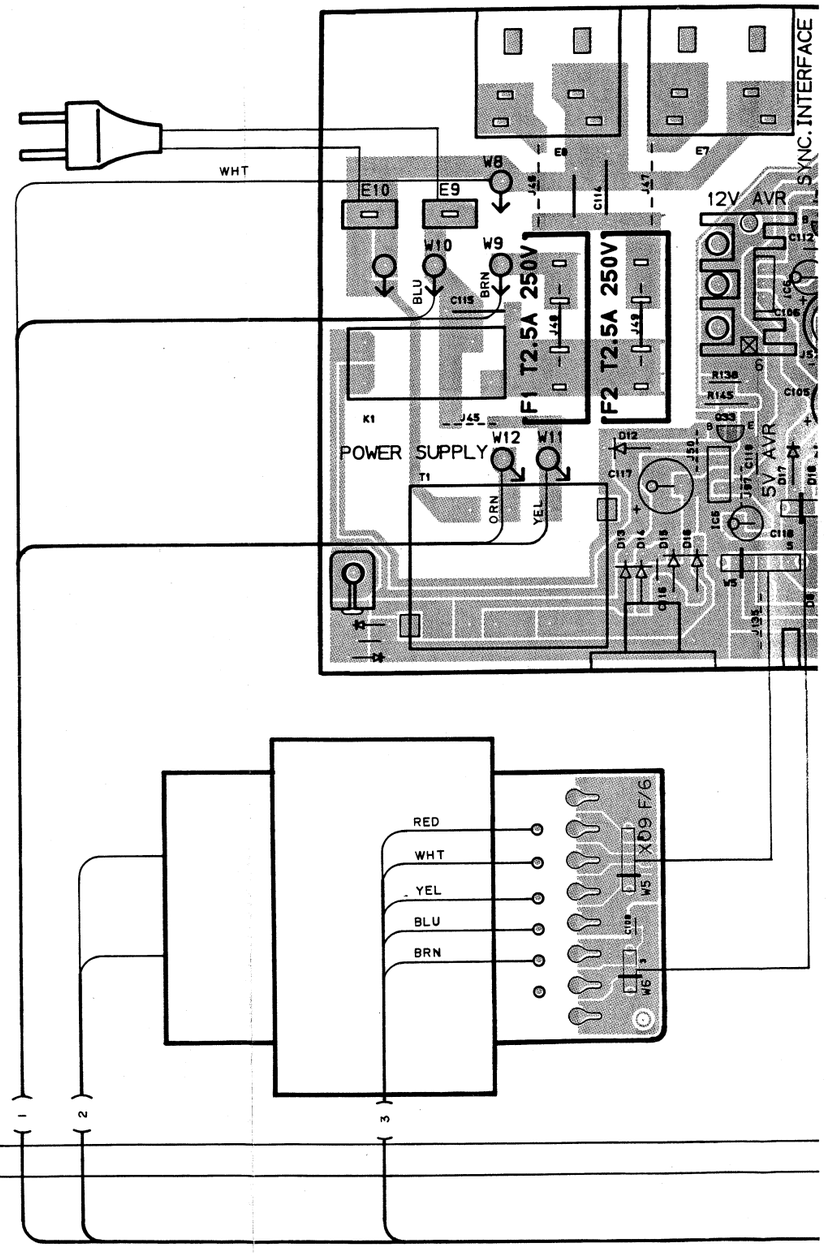
NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	VERSTÄRKER EINSTELLUNG	ABGLEICH-PUNKTE	ABGLEICHEN FÜR	ABB.
1	LEERLAUFSTROM	–	Einen Gleichspannungs-messer über CP1 (L) CP2 (R) anschließen. (X09-)	VOLUME: 0	VR1 (L) VR2 (R) (X89-)	20mV	(a)

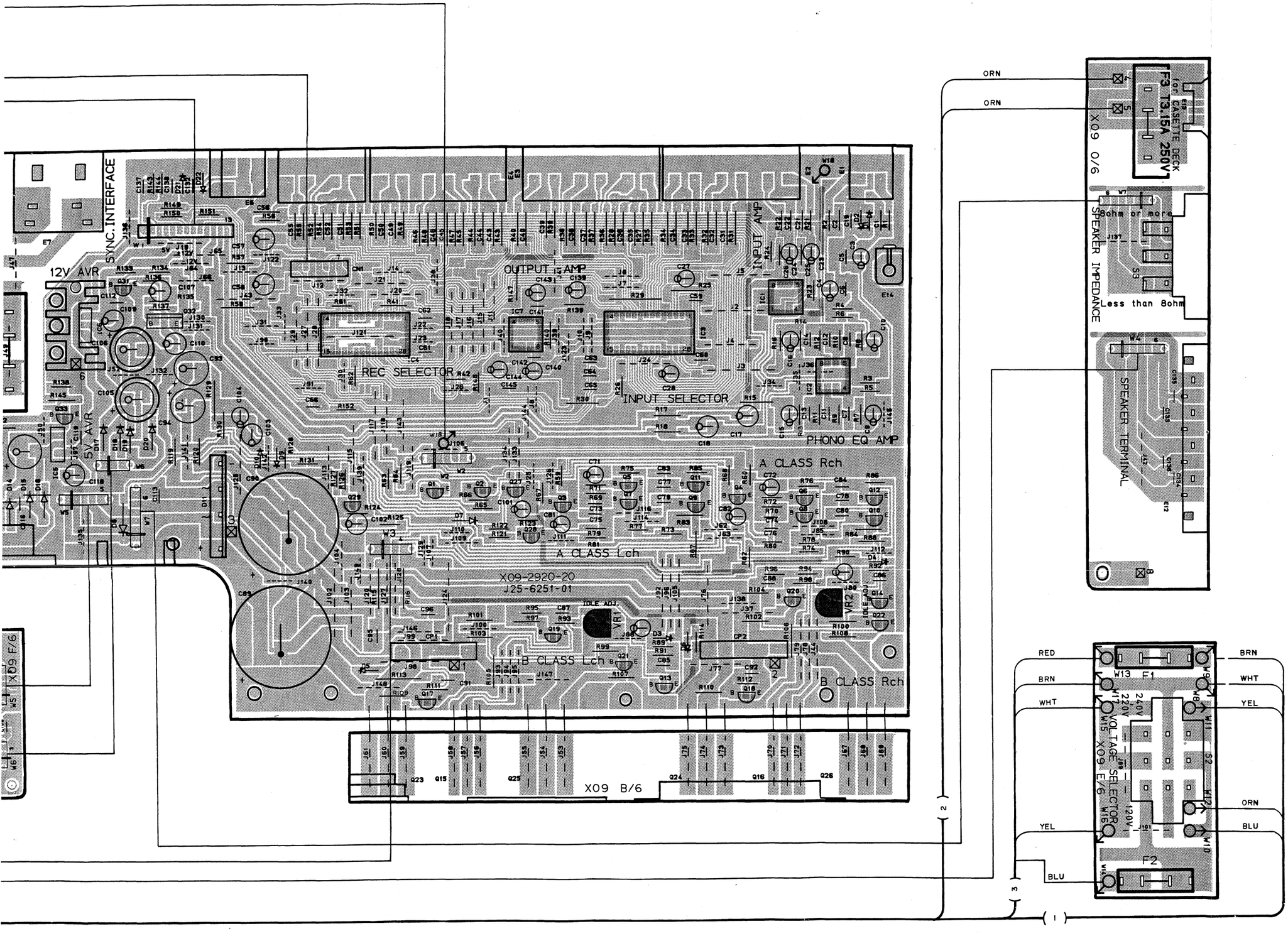


(a)

P.C. BOARD (Component side view)







X09-2920-20

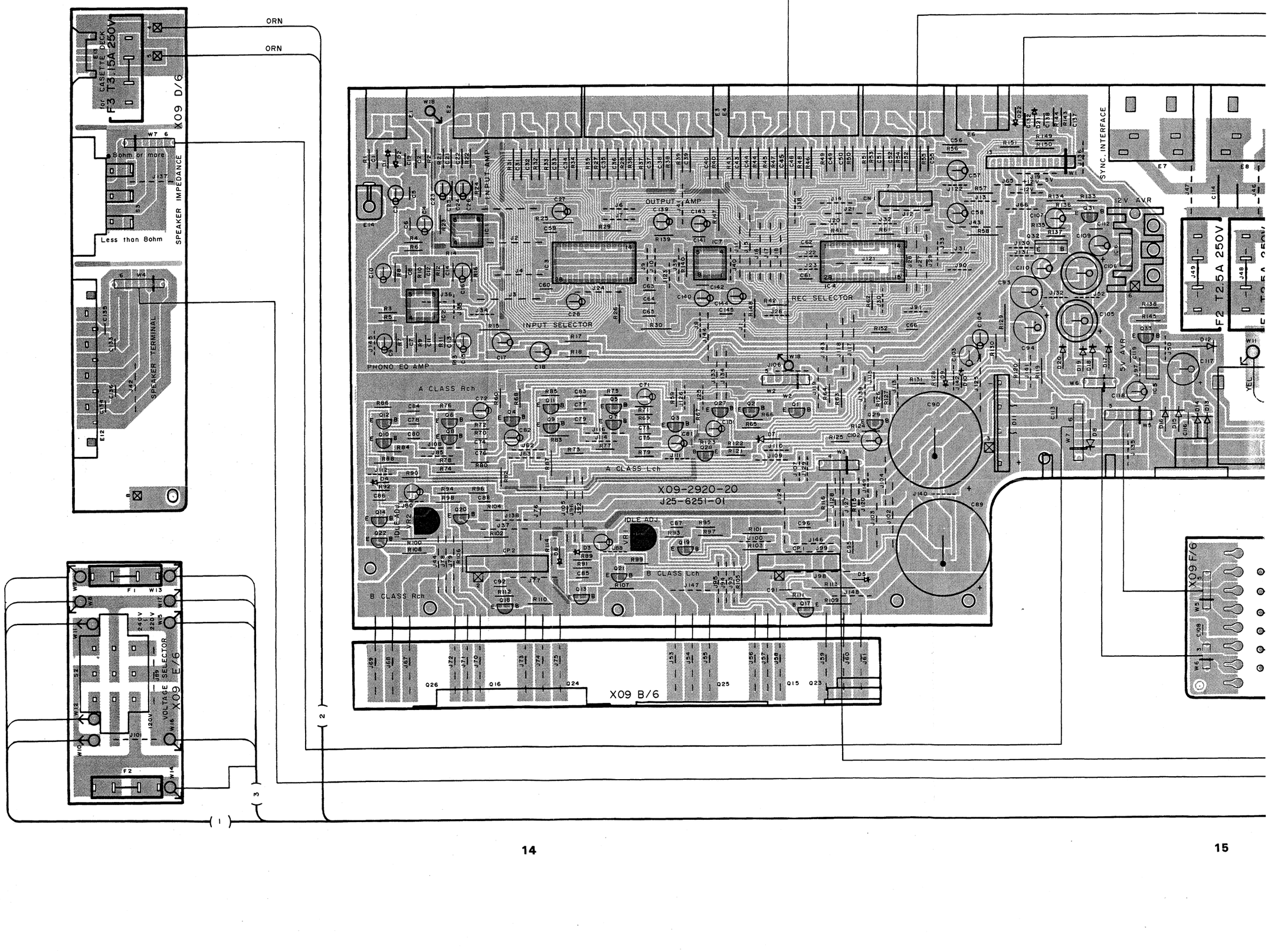
Ref. No. IC	Ref. No. Q	Address
	1	4M
	2	4M
	3	4N
	4	4O
	5	4N
	6	4O
	7	4N
	8	4O
	9	4O
	10	4P
	11	4O
	12	4P
	13	5N
	14	5P
	17	6M
	18	5O
	19	5N
	20	5O
	21	5N
	22	5P
	27	4M
	28	4M
	29	4L
	31	3K
	32	3K
	33	4J
1		3O
2		3O
3		3O
4		3L
5		4J
6		3K
7		3M

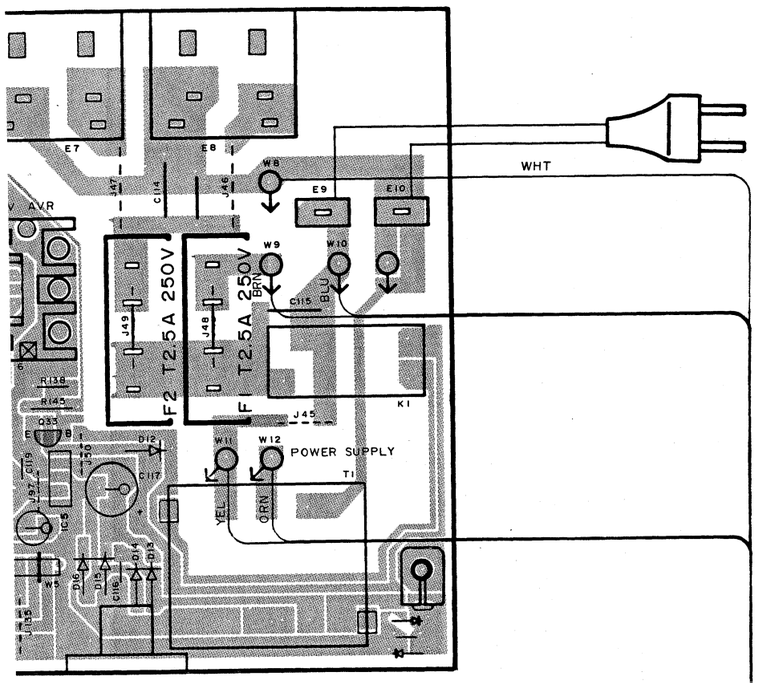
X11-2740-20

Ref. No. IC	Ref. No. Q	Address
	201	6B
	202	5B
	203	3B
	204	3B
201		4D
202		5C
203		
204		4B
205		1E

Refer to the schematic diagram for the values of resistors and capacitors.

P.C. BOARD (Foil side view)



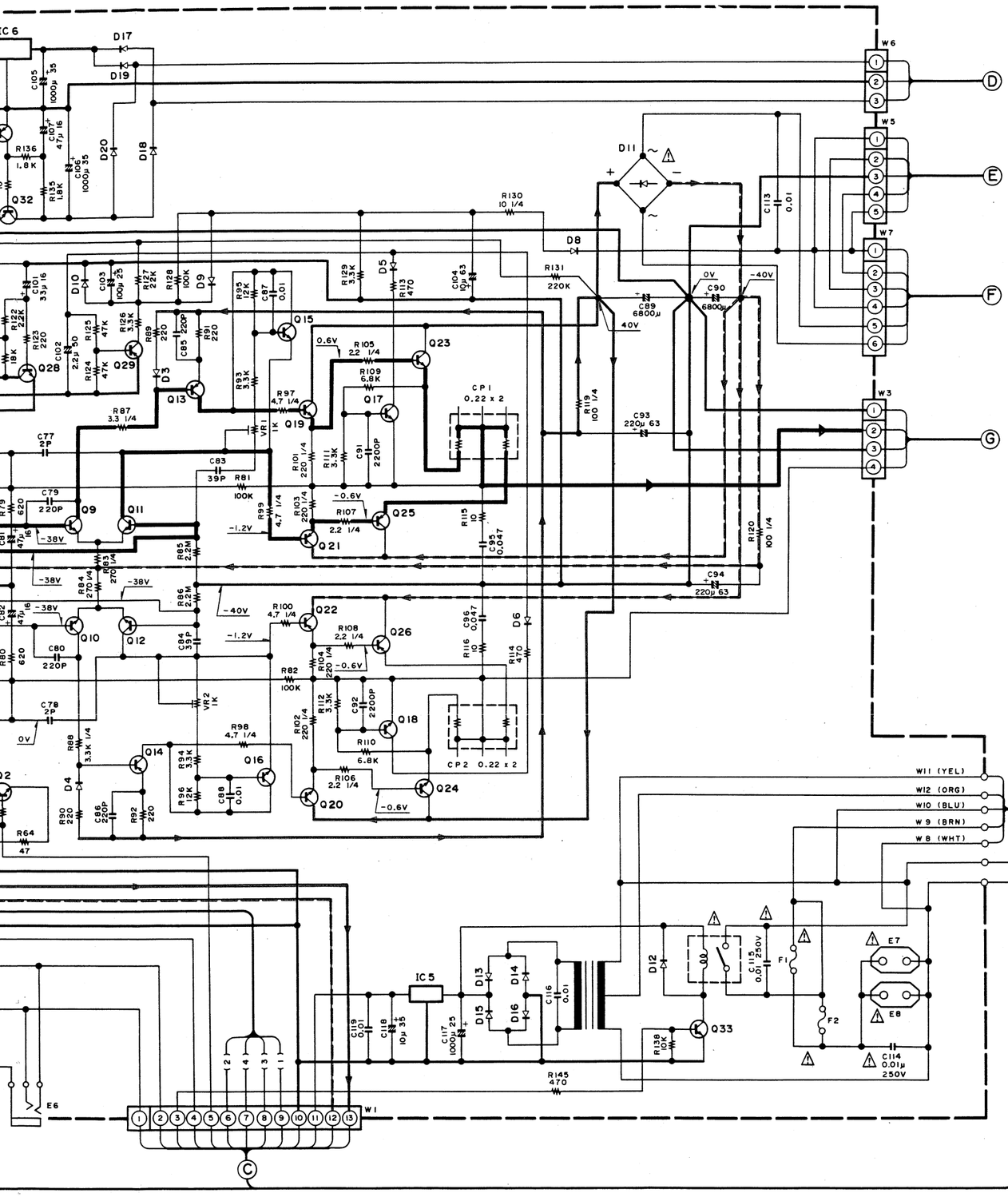

E7
E8
E9
E10
W8
W9
W10
W11
W12
WHT
BLU
BRN
YEL
ORN
AVR
F2 T2.5A 250V
F T2.5A 250V
K1
POWER SUPPLY
T1
D12
D13
D14
D15
D16
D17
D18
C114
C115
C116
C117
C118
C119
C120
J47
J48
J49
J50
J51
R138
R145
R146
R147
R148
R149
R150
R151
R152
R153
R154
R155
R156
R157
R158
R159
R160
R161
R162
R163
R164
R165
R166
R167
R168
R169
R170
R171
R172
R173
R174
R175
R176
R177
R178
R179
R180
R181
R182
R183
R184

X09-2920-20

PHONO
COP
TUNER
AUX
REC TAPE
PLAY
OUT
ADPT
IN
DAT
REC
PLAY
VCR
PLAY

IC1 1/2
IC2 1/2
IC3
IC4
IC6
IC7 1/2
INPUT SELECTOR
REC CONTROLER

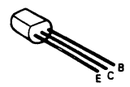
TO E5 EATH PLATE



IC 1, 2, 7	:	µPC4570C-A
IC 3, 4	:	TC9163N
IC 5	:	µPC7805HF
IC 6	:	µPC7812HF
Q1 ~ 4	:	2SC2878 (B)
Q5 ~ 8, 13, 14, 31	:	2SA992 (F.E)
Q9 ~ 12, 17, 18	:	2SC1845 (F.E)
Q15, 16	:	2SC4137 (V.W)
Q19, 20	:	2SC2590
Q21, 22	:	2SA1110
Q23, 24	:	2SC4467
Q25, 26	:	2SA1694
Q29	:	2SA733 (A) (O.P)
Q32, 33	:	2SC2003 (L.K)
D1, 2, 21, 22	:	1SS133 or HSS104
D3 ~ 10	:	1SS131 or HSS104R
D11	:	RBV-602LFA
D12 ~ 20	:	S5568
D23	:	MA156

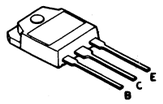
	X09-292			
	0-20	0-71	0-51	2-71
R79, 80	620	←	←	←
S2	YES	NO	←	←
C89, 90	1785	←	←	←
C114	NO	←	YES	←
R111, 112	3.3K	←	←	←
X09 E/6	YES	NO	←	←
W10 ~ 17	YES	NO	←	←
T1 LOI-	7653	7657	←	7652
PT LOI-	8875	8872	←	8877
E7, 8	0108	NO	0109	0108
J48, 49	YES	NO	←	←
F1	NO	T2.5A	←	←
F2	NO	NO	T2.5A	←
F4	T5A	NO	←	←
F5	T2.5A	NO	←	←

2SA733(A)
2SA992
2SC1845
2SC2003
2SC2878
2SC945(A)

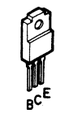


2SA1110
2SC2590

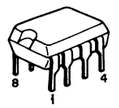
2SA1694LB
2SC4467LB



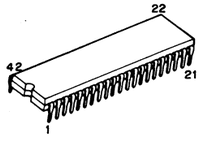
2SB941



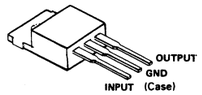
UPC4570C-A



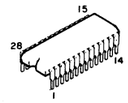
UPD7538AC-075



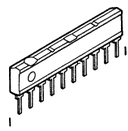
UPC7805HF
UPC7812HF



TC9163N



BA6209N



CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- DC voltages are measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.
- Les tensions c.c. doivent être measurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.
- Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Voltmeter gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

U V W X Y Z AA AB AC AD AE

1 2 3 4 5 6 7

G H D E F A B C

X09 F/6

C108 0.01μ

W6 W5

1 2 3 AC36V 2 AC30V 3 0V 4 AC30V 5 AC36V

1 2 AC14V

W17 W15 W16 W14 W13

X09 E/6 M TYPE

S2 F5 2.5A 250V 220~240V 110~120V F4 5A 250V

W8 W11 W10 W12 W9

X, T, E TYPE

H W8 W9

W4 W3

L1 R117 10 1/4 R118 10 1/4 L2

S1B S1A

ON ↔ OF ON ↔ OFF

C121 220P C122 220P

R142 330 2W R141 330 2W

HEAD PHON

X09 C/6

W201

R221 100 1/4 R222 100 1/4

R256 330 R255 330

C202 1μ 50 C201 1μ 50

C221 47μ 16 C222 47μ 16

R217 390 C217 0.047 R219 390 C219 0.047

R213 390 R215 390

R211 1.5K R209 1.5K C213 1μ 50 R205 1.5K C215 1μ 50 R207 1.5K

C209 4.7μ 36

C203 220P R201 56K C205 100P C207 220P R203 68K

C211 10μ 35

VR201 VR202

C212 10μ 35

C204 220P R202 56K C206 100P C208 220P R204 68K

C210 4.7μ 35

C214 1μ 50 R206 1.5K R208 1.5K C216 1μ 50

R216 390 R214 390

R212 1.5K R210 1.5K

R218 390 C218 0.047 R220 390 C220 0.047

IC201 1/2

X11 B/3

W202 VR203

CN202

R258 15K R257 15K

C248 10μ 35 C247 10μ 35

C244 10μ 35 R252 220K C246 33P

IC205 1/2

R251 220K C245 33P

C243 10μ 35

R227 330

C241 100μ 16 C242 100μ 16

C234 0.01

R223 10K R224 10K VR204

M

X11 C/3

W203

R249 100 R250 100

CN201

R244 330 R245 4.7K D220

D221 D223

R246 4.7K R243 330 D219

D222 D224

C239 100μ 10 C238 0.022μ

R248 220K R247 220K D218

Q202 Q201 R235 1K R236 1K

C230 4.7μ 6.3 R233 4.7K C231 3.3μ R237 100K R234 4.7K C232 3.3μ

IC204

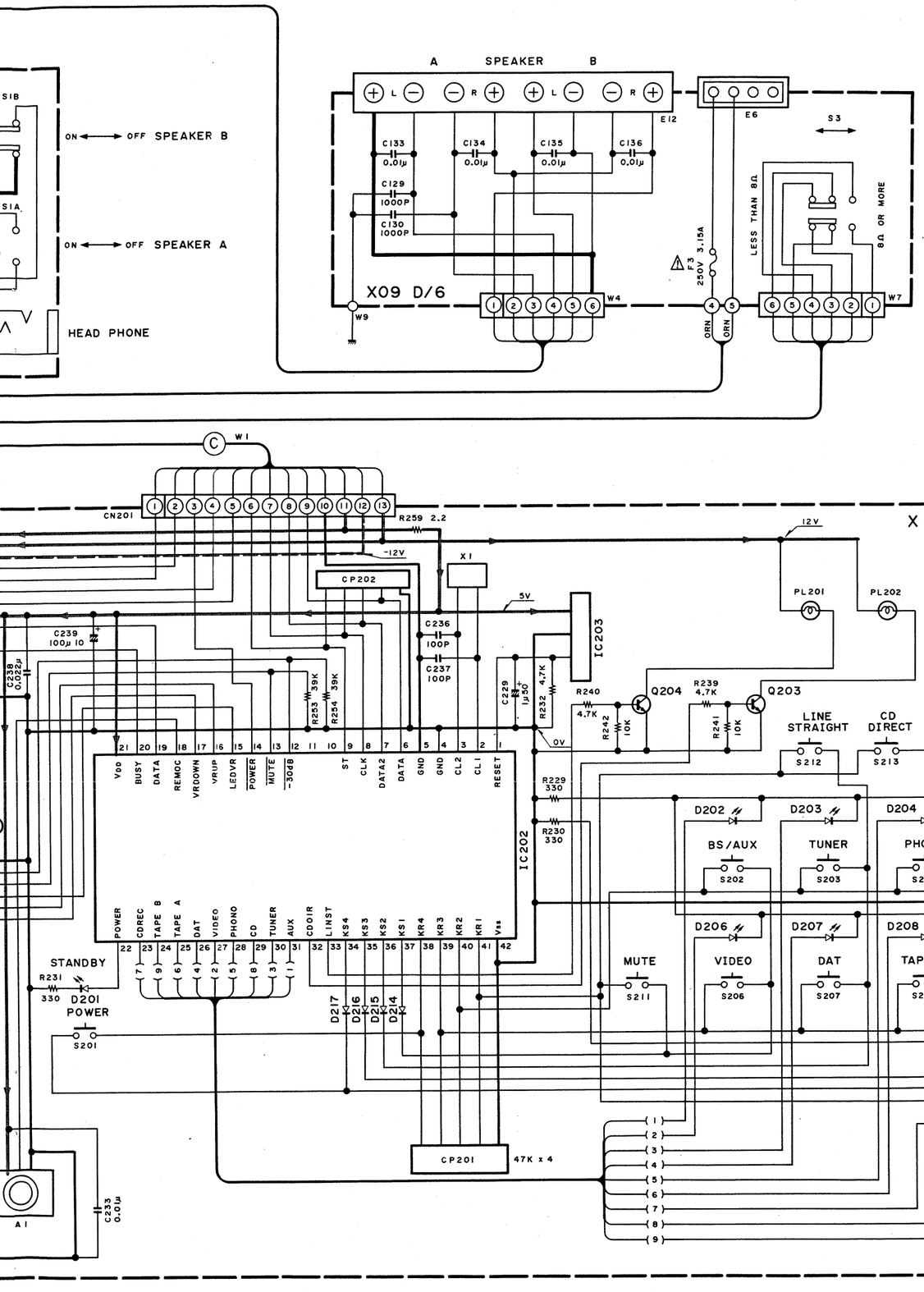
STANDBY R231 330 D201 POWER S201

D225 C225 47μ 16 R226 10K C226 0.01 R225 10/1W

A1

C235 100μ 16 C224 0.01μ C223 0.01μ C233 0.01μ

Vdd BUSY POWER CDREC



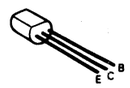
X11-2740-20 A/3
J25-6252-01

IC201, 205 : μPC4570C-A
IC202 : μPD7538AC-075
IC203 : PST524D
IC204 : BA6209N

Q201, 202 : 2SA733(A) (Q.P)
Q203, 204 : 2SC2003(L.K)

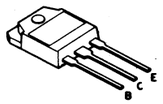
D201 ~ 211 : 830-1223-05
D204 224 : ISS133 or HSS104A

2SA733(A)
2SA992
2SC1845
2SC2003
2SC2878
2SC945(A)

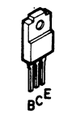


2SA1110
2SC2590

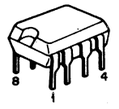
2SA1694LB
2SC4467LB



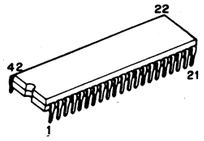
2SB941



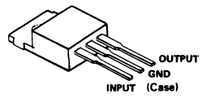
UPC4570C-A



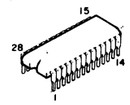
UPD7538AC-075



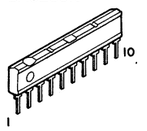
UPC7805HF
UPC7812HF



TC9163N



BA6209N



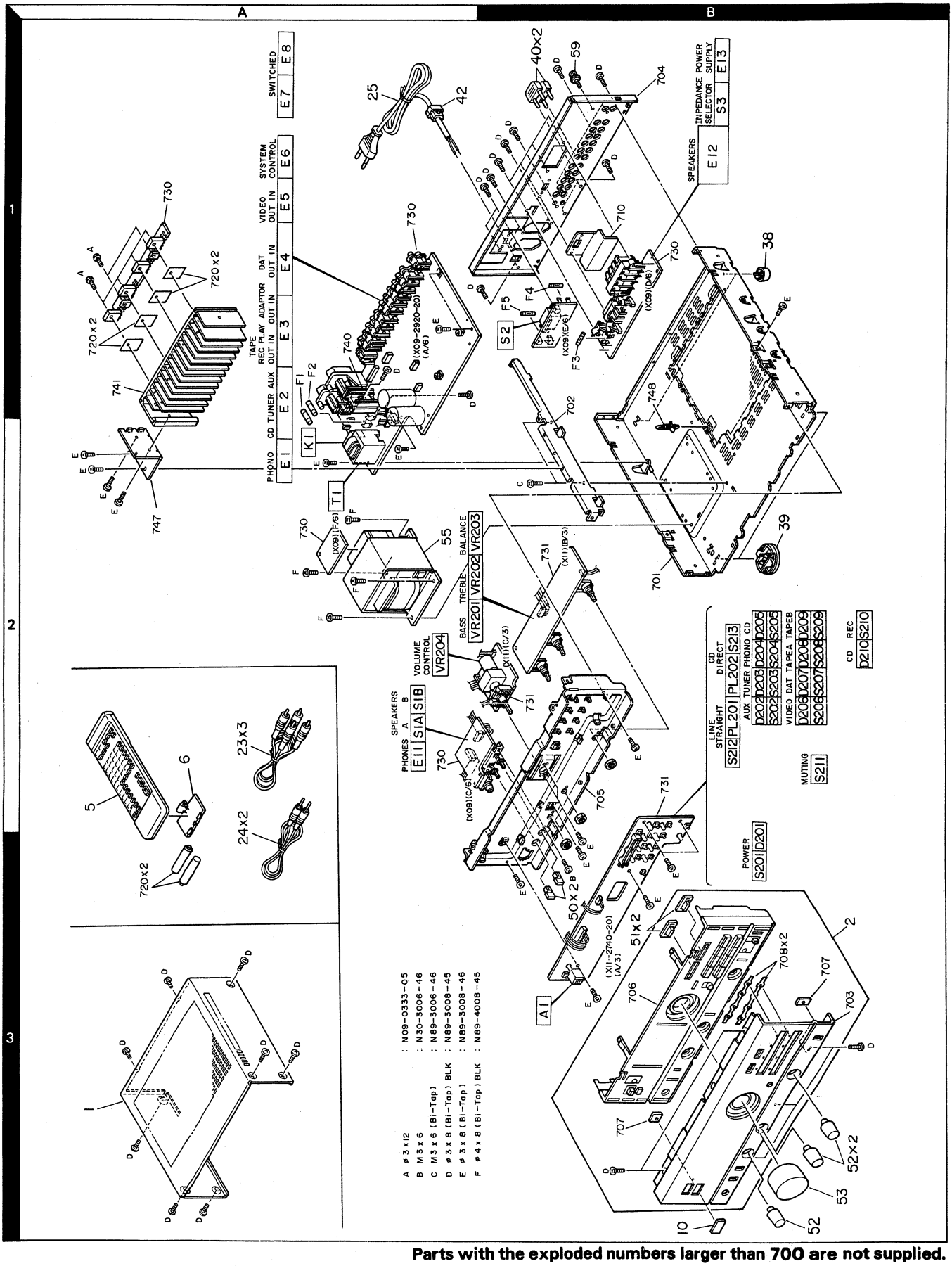
CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

- DC voltages are measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.
- Les tensions c.c. doivent être measurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.
- Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Voltmeter gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

SIGNAL LINE
GND LINE
+B LINE
-B LINE

Y08-3790-20

EXPLODED VIEW



Parts with the exploded numbers larger than 700 are not supplied.

PARTS LIST

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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
			A-83			
1	1A	*	A01-1790-01	METALLIC CABINET		
2	2A	*	A20-5861-02	PANEL ASSY		
5	1B	*	A70-0300-05	REMOTE CONTROLLER ASSY		
6	1B		A09-0088-08	BATTERY CASE		
10	2A	*	B03-2570-04	DRESSING PLATE		
-			B46-0096-13	WARRANTY CARD	X	
-			B46-0122-13	WARRANTY CARD	E	
-			B46-0143-03	WARRANTY CARD	T	
-		*	B50-9827-00	INSTRUCTION MANUAL		
-		*	B50-9828-00	INSTRUCTION MANUAL	ME	
-		*	B50-9829-00	INSTRUCTION MANUAL	M	
-		*	B50-9830-00	INSTRUCTION MANUAL	E	
-		*	B50-9831-00	INSTRUCTION MANUAL	E	
-		*	B52-0341-00	CONNECTING DIAGRAM		
-			B58-0803-13	CAUTION CARD	E	
23	1B		E30-0615-05	AUDIO CORD		
24	1B		E30-1392-05	CORD WITH PLUG		
⚠ 25	1C		E30-0459-05	AC POWER CORD	ME	
⚠ 25	1C		E30-1341-05	AC POWER CORD	X	
⚠ 25	1C		E30-1416-05	AC POWER CORD	T	
⚠ F1 ,2	1C		F05-2525-05	FUSE (SEMKO) (250V T2.5A)		
⚠ F3	2C		F05-3121-05	FUSE (SEMKO) (250V T3.15A)		
⚠ F4 ,5	2C		F05-5025-05	FUSE (SEMKO) (250V T5A)	M	
37	2B		G13-0439-04	CUSHION		
-		*	H01-8619-04	ITEM CARTON CASE		
-		*	H10-3884-02	POLYSTYRENE FOAMED FIXTURE		
-		*	H10-3885-02	POLYSTYRENE FOAMED FIXTURE		
-			H25-0181-04	PROTECTION BAG (150X260X0.05)		
-			H25-0224-04	PROTECTION BAG (800X400X0.03)		
-			H25-0232-04	PROTECTION BAG (235X350X0.03)		
38	2C		J02-0366-15	FOOT		
39	2B	*	J02-1040-05	FOOT		
40	2C		J12-0091-05	PIN		
⚠ 42	1C		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
50	2A	*	K27-1996-04	KNOB (BUTTON)(SPEAKRS)		
51	2A	*	K29-3742-04	KNOB (LINE,CD)		
52	2A	*	K29-3743-04	KNOB (BASS,TREBLE,BALANCE)		
53	2A	*	K29-3744-04	KNOB (VOLUME)		
⚠ 55	1B	*	L01-8872-05	POWER TRANSFORMER	XT	
⚠ 55	1B	*	L01-8875-05	POWER TRANSFORMER	M	
⚠ 55	1B	*	L01-8877-05	POWER TRANSFORMER	E	
59	2C		N08-0128-35	BINDING POST		
A	1C		N09-0333-05	TAPPING SCREW (3X12)		
B	1A		N30-3006-46	PAN HEAD MACHINE SCREW		
C	2B		N89-3006-46	BINDING HEAD TAPTITE SCREW		
D	1A,2A		N89-3008-45	BINDING HEAD TAPTITE SCREW		
E	2A		N89-3008-46	BINDING HEAD TAPTITE SCREW		
F	1B		N89-4008-45	BINDING HEAD TAPTITE SCREW		

E: Scandinavia & Europe **K**: USA **P**: Canada
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PARTS LIST

* New Parts
Parts without **Parts No.** are not supplied.
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Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格			Destination 仕向	Remarks 備考
Q15 ,16		*	2SC4137F19(V,W)	TRANSISTOR				
Q23 ,24		*	2SC4467LB	TRANSISTOR				
Q25 ,26		*	2SA1694LB	TRANSISTOR				
AUDIO UNIT (X09-2920-20)								
C1 ,2			C91-0749-05	CERAMIC	220PF	K		
C3 ,4			CE04KW1V100M	ELECTRO	10UF	35WV		
C5 ,6			CC45FSL1H101J	CERAMIC	100PF	J		
C7 ,8			CK45FB1H561K	CERAMIC	560PF	K		
C9 ,10			CE04KW1C470M	ELECTRO	47UF	16WV		
C11 ,12			CF92FV1H123J	MF	0.012UF	J		
C13 ,14			CF92FV1H332J	MF	3300PF	J		
C15 ,16			CE04KW1V100M	ELECTRO	10UF	35WV		
C17 ,18			CE04KW1C470M	ELECTRO	47UF	16WV		
C19			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C21 ,22			C91-0749-05	CERAMIC	220PF	K		
C23 ,24			CE04KW1C470M	ELECTRO	47UF	16WV		
C25 ,26			C91-0745-05	CERAMIC	100PF	K		
C27 ,28			CE04KW1C470M	ELECTRO	47UF	16WV		
C31 -40			C91-0749-05	CERAMIC	220PF	K		
C43 -46			C91-0749-05	CERAMIC	220PF	K		
C49 -52			C91-0749-05	CERAMIC	220PF	K		
C55 ,56			C91-0749-05	CERAMIC	220PF	K		
C57 ,58			CE04KW1C101M	ELECTRO	100UF	16WV		
C59 -67			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C71 ,72			CE04KW1H2R2M	ELECTRO	2.2UF	50WV		
C73 ,74			CC45FSL1H221J	CERAMIC	220PF	J		
C75 ,76			CC45FSL1H121J	CERAMIC	120PF	J		
C77 ,78			CC45FSL1H020C	CERAMIC	2.0PF	C		
C79 ,80			CC45FSL1H221J	CERAMIC	220PF	J		
C81 ,82			CE04KW1C470M	ELECTRO	47UF	16WV		
C83 ,84			CC45FSL1H390J	CERAMIC	39PF	J		
C85 ,86			CC45FSL1H221J	CERAMIC	220PF	J		
C87 ,88			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C89 ,90		*	C90-1785-05	ELECTRO	6800UF	63WV		
C91 ,92			CK45FB1H222K	CERAMIC	2200PF	K		
C93 ,94			CE04KW1J221M	ELECTRO	220UF	63WV		
C95 ,96			CF92FV1H473J	MF	0.047UF	J		
C101			CE04KW1C330M	ELECTRO	33UF	16WV		
C102			CE04KW1H2R2M	ELECTRO	2.2UF	50WV		
C103			CE04KW1E101M	ELECTRO	100UF	25WV		
C104			CE04KW1J100M	ELECTRO	10UF	63WV		
C105,106			CE04KW1V102M	ELECTRO	1000UF	35WV		
C107			CE04KW1C470M	ELECTRO	47UF	16WV		
C108			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C109,110			CE04KW1C470M	ELECTRO	47UF	16WV		
C112			CF92FV1H103J	MF	0.010UF	J		
C113			CK45FF1H103Z	CERAMIC	0.010UF	Z		
⚠ C114,115			C91-0971-05	FILM	0.01UF	250WV	TE	
⚠ C115			C91-0971-05	FILM	0.01UF	250WV	MX	
C116			CK45FF1H103Z	CERAMIC	0.010UF	Z		
C117			CE04KW1E102M	ELECTRO	1000UF	25WV		
C118			CE04KW1V100M	ELECTRO	10UF	35WV		
C119			CF92FV1H103J	MF	0.010UF	J		
C121,122			CC45FSL1H221J	CERAMIC	220PF	J		

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印は安全部品

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	C129,130			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C132			CK45FF1H103Z	CERAMIC 0.010UF Z		
	C133-136			CF92FV1H103J	MF 0.010UF J		
	C137,138			CK45FB1H471K	CERAMIC 470PF K		
	C139,140			CE04KW1V100M	ELECTRO 10UF 35WV		
	C141,142			CC45FSL1H220J	CERAMIC 22PF J		
	C143,144			CE04KW1V100M	ELECTRO 10UF 35WV		
	E1			E13-0235-05	PHONO JACK (2P)		
	E2 -4			E13-0621-05	PHONO JACK (6P)		
	E5			E13-0446-05	PHONO JACK (4P)		
	E6			E11-0188-05	MINIATURE PHONE JACK		
⚠	E7 ,8		*	E03-0108-05	AC OUTLET	ME	
⚠	E7 ,8		*	E03-0109-05	AC OUTLET	T	
	E11			E11-0162-05	PHONE JACK (3P)		
	E12			E20-0823-05	LOCK TERMINAL BOARD(8P)		
	E13			E08-0411-05	RECTANGULAR RECEPTACLE		
	73	1C,2C		J13-0054-05	FUSE CLIP		
	L1 ,2			L39-0085-05	PHASE-COMPENSATION COIL		
⚠	T1			L01-7652-05	POWER TRANSFORMER	E	
⚠	T1			L01-7653-05	POWER TRANSFORMER	M	
⚠	T1			L01-7657-05	POWER TRANSFORMER	XT	
	D			N89-3008-45	BINDING HEAD TAPTITE SCREW		
	G			N30-3008-46	PAN HEAD MACHINE SCREW		
	CP1 ,2			R90-0187-05	MULTI-COMP 0.22X2 K 5W		
	R17 ,18			RD14AB2E101J	FL-PROOF RD 100 J 1/4W		
	R57			RD14AB2E101J	FL-PROOF RD 100 J 1/4W		
	R58			RS14KB3A101J	FL-PROOF RS 100 J 1W		
	R115,116			RS14KB3D100J	FL-PROOF RS 10 J 2W		
	R117,118			RD14AB2E100J	FL-PROOF RD 10 J 1/4W		
	R119,120			RD14AB2E101J	FL-PROOF RD 100 J 1/4W		
	R129			RS14KB3D332J	FL-PROOF RS 3.3K J 2W		
	R130			RD14AB2E100J	FL-PROOF RD 10 J 1/4W		
	R141,142			RS14KB3D331J	FL-PROOF RS 330 J 2W		
	R145			RD14AB2E471J	FL-PROOF RD 470 J 1/4W		
	VR1 ,2			R12-1099-05	TRIMMING POT.(1K)		
	K1			S51-1052-05	MAGNETIC RELAY		
	S1		*	S42-2173-05	MULTIPLE PUSH SWITCH		
⚠	S2			S31-3010-05	SLIDE SWITCH	M	
	S3			S31-2136-05	SLIDE SWITCH (POWER TYPE)		
	D1 ,2			HSS104	DIODE		
	D1 ,2			1SS133	DIODE		
	D3 -7			HSS104A	DIODE		
	D3 -7			1SS131	DIODE		
	D8			S5566B	DIODE		
	D9 ,10			HSS104A	DIODE		
	D9 ,10			1SS131	DIODE		
	D11			RBV-602LFA	DIODE		
	D12 -20			S5566B	DIODE		
	D21 ,22			HSS104	DIODE		
	D21 ,22			1SS133	DIODE		
	IC1 ,2			UPC4570C-A	IC(OP AMP X2)		
	IC3 ,4			TC9163N	IC(BILATERAL SWITCH X16)		

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IC5			UPC7805HF	IC(VOLTAGE REGULATOR/ +5V)		
IC6			UPC7812HF	IC(VOLTAGE REGULATOR/ +12V)		
IC7			UPC4570C-A	IC(OP AMP X2)		
Q1 -4			2SC2878(B)	TRANSISTOR		
Q5 -8			2SA992(F,E)	TRANSISTOR		
Q9 -12			2SC1845(F,E)	TRANSISTOR		
Q13 ,14			2SA992(F,E)	TRANSISTOR		
Q17 ,18			2SC1845(F,E)	TRANSISTOR		
Q19 ,20			2SC2590	TRANSISTOR		
Q21 ,22			2SA1110	TRANSISTOR		
Q27 ,28			2SC945(A)(Q,P)	TRANSISTOR		
Q29			2SA733(A)(Q,P)	TRANSISTOR		
Q31			2SA992(F,E)	TRANSISTOR		
Q32			2SB941	TRANSISTOR		
Q33			2SC2003(L,K)	TRANSISTOR		
CONTROL UNIT (X11-2740-20)						
D201-210			B30-1223-05	LED(LN21CPH(V)-C)		
PL1 ,2			B30-1260-05	LAMP		
C201,202			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C203,204			CC45FSL1H221J	CERAMIC 220PF J		
C205,206			CC45FSL1H101J	CERAMIC 100PF J		
C207,208			CK45FB1H222K	CERAMIC 2200PF K		
C209,210			CE04KW1V4R7M	ELECTRO 4.7UF 35WV		
C211,212			CE04KW1V100M	ELECTRO 10UF 35WV		
C213-216			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C217-220			CF92FV1H473J	MF 0.047UF J		
C221,222			CE04KW1C470M	ELECTRO 47UF 16WV		
C223,224			CK45FF1H103Z	CERAMIC 0.010UF Z		
C225			CE04KW1C470M	ELECTRO 47UF 16WV		
C226			CK45FF1H103Z	CERAMIC 0.010UF Z		
C229			CE04KW1H010M	ELECTRO 1.0UF 50WV		
C230			CE04KW0J471M	ELECTRO 470UF 6.3WV		
C231,232			C90-1351-05	NP-ELEC 3.3UF 50WV		
C233,234			CK45FF1H103Z	CERAMIC 0.010UF Z		
C235			CE04KW1C101M	ELECTRO 100UF 16WV		
C236,237			CC45FSL1H101J	CERAMIC 100PF J		
C238			CK45FF1H223Z	CERAMIC 0.022UF Z		
C239			CE04KW1A101M	ELECTRO 100UF 10WV		
C241,242			CE04KW1C101M	ELECTRO 100UF 16WV		
C243,244			CE04KW1V100M	ELECTRO 10UF 35WV		
C245,246			CC45FSL1H330J	CERAMIC 33PF J		
C247,248			CE04KW1V100M	ELECTRO 10UF 35WV		
X1			L78-0239-05	RESONATOR		
CP201			R90-0202-05	MULTI-COMP 47KX4 J 1/6W		
CP202			R90-0824-05	MULTIPLE RESISTOR		
R221,222			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
R225			RS14KB3A100J	FL-PROOF RS 10 J 1W		
R249,250			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		
VR201,202			R06-3059-05	POTENTIOMETER		
VR203			R01-5052-05	POTENTIOMETER(200K)		
VR204		*	R29-5035-05	POTENTIOMETER		
S201-213			S40-1064-05	PUSH SWITCH		

E: Scandinavia & Europe K: USA P: Canada
U: PX(Far East, Hawaii) T: England M: Other Areas
UE: AAFES(Europe) X: Australia

⚠ indicates safety critical components.

PARTS LIST

* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
D214-224			HSS104	DIODE		
D214-224			1SS133	DIODE		
D225			HZS5.1N(B2)	ZENER DIODE		
D225			RD5.1ES(B2)	ZENER DIODE		
IC201			UPC4570C-A	IC(OP AMP X2)		
IC202		*	UPD7538AC-075	IC(MICROPROCESSOR)		
IC203		*	PST524D	IC		
IC204		*	BA6209N	IC(MOTOR DRIVER)		
IC205			UPC4570C-A	IC(OP AMP X2)		
Q201,202			2SA733(A)(Q,P)	TRANSISTOR		
Q203,204			2SC2003(L,K)	TRANSISTOR		
A1			W02-0975-05	ELECTRIC CIRCUIT MODULE		

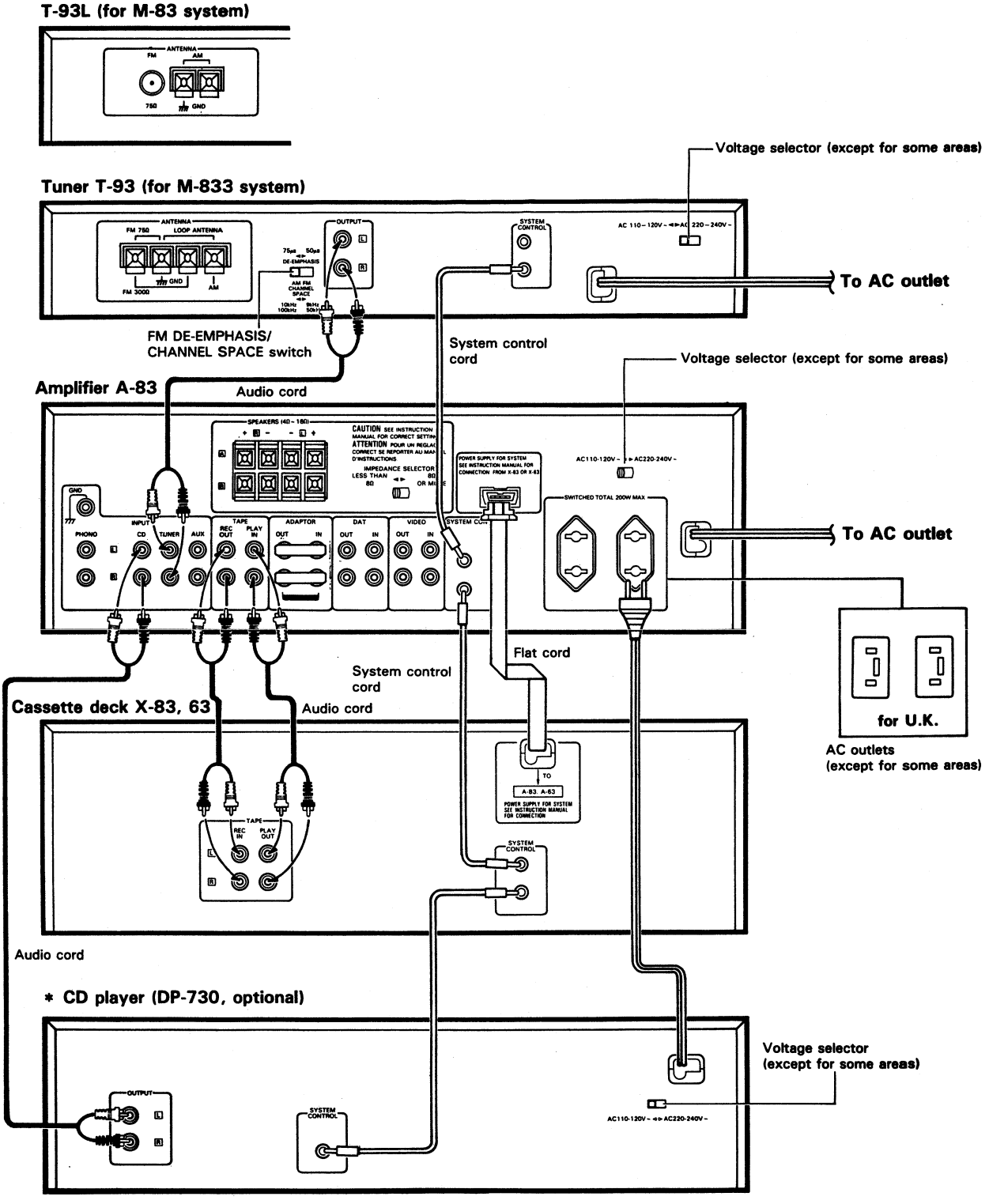
E: Scandinavia & Europe K: USA P: Canada
U: PX(Far East, Hawaii) T: England M: Other Areas
UE: AAFES(Europe) X: Australia

⚠ indicates safety critical components.

SYSTEM CONNECTIONS

Basic system connections

Make connection as shown below. When connecting the related system components, refer also to the instruction manuals of the related components.
Do not plug in the power lead until all connections are complete.



***IMPORTANT:**
This option may not be available in some areas. For details on options, consult your dealer.

A-83

SPECIFICATIONS

(for Europe and U.K.)

A-83

Continuous power output
- **DIN at 1 kHz 8 Ω** ..... 75 W + 75 W
- **IEC/NF at 8 Ω** ..... 74 W + 74 W

Total harmonic distortion
- **at 1/2 rated power** 0.09%

Signal to noise ratio (IHF '66)
- **PHONO (MM)** ..... 77 dB
- **CD, TUNER, AUX, TAPE** ..... 100 dB

Signal to noise ratio (DIN at 50 mW output)
- **PHONO (MM)** ..... 57 dB
- **CD, TUNER, AUX, TAPE** ..... 58 dB

Input sensitivity/Impedance
- **PHONO (MM)** ..... 2.5 mV/47 kΩ
- **CD, TUNER, AUX, TAPE** ..... 150 mV/47 kΩ

Frequency response
- **(10 Hz to 100,000 Hz)** ..... +0 dB, −3 dB

Tone Controls
- **BASS** ..... ±10 dB (at 100 Hz)
- **TREBLE** ..... ±10 dB (at 10 kHz)

Output level/Impedance
- **TAPE REC** ..... 150 mV/3.3 kΩ

General

Power consumption ..... 150 W

Dimension ..... W: 360 mm
H: 129 mm
D: 371 mm

Weight (net) ..... 7.8 kg

(Except for Europe and U.K.)

A-83

Continuous power output
- **From 20 Hz to 20 kHz,**
  0.09% T.H.D. at 8 Ω ..... 65 W + 65 W
- **Maximum useful power output**
  (EIAJ at 8 Ω) ..... 95 W + 95 W

Total harmonic distortion
- **at rated power** 0.09%

Signal to noise ratio (IHF '66)
- **PHONO (MM)** ..... 77 dB
- **CD, TUNER, AUX, TAPE** ..... 100 dB

Input sensitivity/Impedance
- **PHONO (MM)** ..... 2.5 mV/47 kΩ
- **CD, TUNER, AUX, TAPE** ..... 150 mV/47 kΩ

Frequency response
- **(10 Hz to 100,000 Hz)** ..... +0 dB, −3 dB

Tone controls
- **BASS** ..... ±10 dB (at 100 Hz)
- **TREBLE** ..... ±10 dB (at 10 kHz)

Output level/Impedance
- **TAPE REC** ..... 150 mV/3.3 kΩ

General

Power consumption ..... 150 W

Dimension ..... W: 360 mm
H: 129 mm
D: 371 mm

Weight (net) ..... 7.8 kg

Note:

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

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